LICENSE AGREEMENT

For Installation, Operation, and Maintenance of Two Water Quality Monitoring Stations on Harold Crane WMA

This License Agreement ("License") is entered into by and between the Utah Division of Wildlife Resources of 1594 West North Temple, Suite 2110, Salt Lake City, Utah ("Division"), and the Utah Division of Water Quality, 195 North 1950 West, Third Floor ("Licensee"). Division and Licensee are collectively referred to herein as the "Parties."

RECITALS

WHEREAS, the Division owns certain real property known as the Harold Crane Wildlife Management Area ("WMA") located in Sections 20, 21, 24, 25, 26, 27, 28, 29, 32, 33, 34, and 36, Township 7 North, Range 3 West, SLB&M, Weber County, Utah ("Property"), more specifically depicted in Exhibit A; and

WHEREAS, Licensee wishes to conduct water quality monitoring within and adjacent to the WMA, more specifically described in their Proposed Plan attached in Exhibit B; and

WHEREAS, the Parties are authorized to enter into this License consistent with the provisions found in Utah Code Section 23-22-1.

NOW THEREFORE, the Parties agree as follows:

- 1. <u>PURPOSE</u>. The Parties are part of a Steering Committee investigating potential impacts from a proposed wastewater treatment facility called the Perry/Willard Regional Wastewater Treatment Plant. As part of the Steering Committee, the Parties wish to conduct water quality monitoring in potentially affected areas, one of which is the WMA. In order to carryout this research, Licensee wishes to conduct a combination of continuous and monthly water flow monitoring and water sampling within and adjacent to the WMA to better understand water flows and water quality in the area. The objective of the Proposed Plan is to evaluate the quantity and quality of water contributed from the WMA to Willard Spur.
- 2. <u>PARTY OBLIGATIONS</u>. The Division agrees to allow Licensee and/or their bona fide agents or assigns the following uses of the Property, but specifically reserves the right to unilaterally revoke the License at any time and for any reason.
 - Licensee may locate, operate, repair, and, if necessary, replace the following infrastructure:
 - One continuous flow measurement station on the ditch on or near the eastern boundary of the WMA, labeled "WMA Ditch" in Figure 1 of the Proposed Plan. This may consist of installing a pressure transducer to monitor water level and

water flow changes and a guide wire across the channel to facilitate flow velocity measurements. Water samples will be collected at this location generally on a monthly basis; and

• One continuous water level measurement station at or near the location labeled "Water Level" in Figure 2 of the Proposed Plan. A proposed schematic for this measurement station is depicted in Figure 3 of the Proposed Plan.

The Division further licenses Licensee to:

- Check each of the 16 existing weirs located on the South Dike in or adjacent to the WMA, verify their flow rates, and collect water samples at flowing weirs;
- Check and collect water samples from the North Dike culverts one or two times during 2011; and
- Establish a temporary events-based composite water sampling system to capture
 how water quality may change during storm events and/or other flow "pulses,"
 subject to the approval of the Division;
- Utilize roads maintained and operated by the Division through the WMA to access necessary water sampling locations. Said access may be by motor vehicle or ATV, provided that the Division has approved such use and the roads are not muddy or otherwise susceptible to damage.

After the water quality monitoring stations are installed, Licensee shall provide the locations of those stations to the Division.

Licensee shall place the water quality monitoring stations in a discrete and camouflaged manner so as to not interfere with wildlife habitat or aesthetic values of the property. The Division is not responsible for any vandalism or damage that may result to the water quality monitoring stations or equipment.

Licensee shall not use any heavy machinery in the installation, maintenance, repair, or replacement of monitoring equipment without the prior written consent of the Harold Crane Wildlife Management Area Supervisor.

Licensee shall not operate motorized equipment off of maintained roads. Any damage resulting from said road use shall be repaired by Licensee at their sole expense.

Licensee shall coordinate with the Harold Crane Wildlife Management Area Supervisor as to the timing of the initiation of construction activities and sampling activities. Licensee further agrees to provide 48 hours notice of any and all proposed activities by

Licensee on the WMA. Access to the WMA shall be limited to activities necessary to carryout the water quality monitoring project.

Licensee shall conduct activities under this license in such a manner so as to not interfere with the wildlife and/or habitat values of the Property. Licensee shall coordinate with the Harold Crane Wildlife Management Area Supervisor on methods of minimizing their impact to the wildlife and/or habitat values of the Property.

Licensee shall not introduce hazardous materials into the WMA.

The Proposed Plan will be implemented over a minimum of one year beginning April 1, 2011 and extend up to an additional three years at Licensee's discretion in coordination with the Division.

The Division agrees to make note of any structural changes or modifications to the 16 weirs or dikes identified in the Proposed Plan that might impact changes in flow and provide this information to Licensee in a reasonable timeframe after the Division acquires notice of such changes or modifications.

Upon termination of this license, Licensee shall reclaim the water quality monitoring stations and any surrounding areas impacted by the use and operation of the stations. Reclamation may require reseeding and/or resurfacing of the project area. Reclamation and/or resurfacing responsibilities shall survive the termination of this License, and shall be conducted to the written approval of the Harold Crane Wildlife Management Area Supervisor. If Licensee fails to remove water quality monitoring infrastructure from the Property, said infrastructure shall become the property of the Division and may be removed by the Division at the expense of Licensee.

All water quality data collected by Licensee, their agents, or assigns shall be shared with the Division.

Uses or activities not outlined above are deemed outside the License and shall require prior written approval by an authority of the Division authorized to give such approval. Exercise of a use by the Licensee, his/her tenants, officers, agents, and/or representatives, that is outside what is specifically allowed in this License or specifically approved by the Division in writing shall be grounds for, but not limited to, revocation of the license, trespass, and other civil remedies exercised by Division at their discretion.

Any future expansion of activities beyond those contained in this License or the Proposed Plan must be approved in writing by the Regional Division Habitat Manager.

- 3. <u>REVOCATION</u>. Both Division and Licensee understand that Division retains the option of revoking the License at any time and for any reason without prior notice to Licensee. Licensee shall be on notice that substantial investments, monetary or otherwise, shall not negate the revocation ability reserved to Division in this License. In the event the Division decides to terminate this License, the Division agrees to notify the Steering Committee and explain the reasoning behind said termination.
- 4. <u>TERMS AND CONDITIONS</u>. The issuance of this License is subject to the following Terms and Conditions:
 - a. **Incorporation of Recitals**. The aforementioned Recitals are incorporated into this License and referred to herein.
 - b. **Enforcement**. The Division and Licensee intend that enforcement of the terms and conditions of this License shall be at the discretion of the Division, and the Division's failure to exercise its rights under this License, in event of any breach by Licensee, shall not be considered a waiver of the Division's rights under this License in the event of any subsequent breach.
 - c. Release and Indemnification. Licensee agrees to protect, indemnify, and hold harmless and release the Division and all of its officers, agents, volunteers and employees, from and against any and all loss, damages, injury, liability, suits, and proceedings arising from Licensee's presence and activities on Division property which are caused solely by the negligence or willful misconduct of Licensee; it being the intent that Licensee will not indemnify, hold harmless or release the Division from willful misconduct, gross negligence, or the negligent acts or omissions of the Division and its officers, agents, volunteers or employees. If both parties are negligent, they shall each bear their proportionate share of any allocated fault or responsibility. Nothing contained herein shall be construed as waiving immunity, the monetary damage limitations, or any other provision set forth in the Utah Governmental Immunity Act, Utah Code §§ 63G-7-101 through 63G-7-904.
 - d. **Notices**. All notices pertaining to this License shall be in writing delivered to the parties personally, by facsimile transmission, by commercial express courier service or by first class United States mail, postage prepaid, addressed to the Parties at the addresses set forth herein. All notices given personally, or by commercial express courier service shall be deemed given when delivered. All notices given by mail shall be deemed given when received after being deposited in the mail, first class postage prepaid, certified, with return receipt requested, addressed to the party to be notified. All notices transmitted by facsimile shall be deemed given when transmitted. The Parties may, by notice as provided above, designate a different address to which notice shall be given. Parties may choose an alternate form of communication, so long as that alternate form is mutually agreed upon in writing.
 - e. **Violations**. In the event the Division becomes aware of a violation or potential violation by Licensee of any condition or restriction in this License, the Division

may notify Licensee in writing of such violation, potential violation, damage or potential damage. Upon receipt of such notice, Licensee agrees to immediately take action to prevent or stop the activity, which potentially or actually violates the terms or intent of this License. Notification of a Violation in no way inhibits or modifies the Division's authority to revoke at any time the License issued to Licensee.

- f. **Non-Restrictive Agreement**. This License in no way restricts Licensee or the Division from participating in similar activities or entering into other agreements with other public or private agencies, organizations and individuals.
- g. **Amendment**. This License may be amended as need may arise, provided such amendments are in writing and agreed upon by all Parties.
- h. **Entire Agreement**. This License sets forth the entire agreement of the Parties, and it is intended to supersede all prior discussion or understandings.
- i. **Liberal Construction**. This License shall be liberally construed. The Parties acknowledge that each has reviewed and revised this License with the opportunity for legal assistance, and that no rule of construction resolving ambiguities against the drafting party shall be employed in interpreting this License.
- j. Effective Date. The effective date of this License shall be the date it is signed by all parties.
- k. **Governing Law**. This License shall be interpreted and construed in accordance with applicable Utah laws.
- 1. **Authority**. The signatories to this License each represent and warrant to hold lawful authority to execute this License in behalf of their respective organizations and to bind the same to the terms and conditions herein.
- m. Contacts. Official Contacts for both Parties are:

Division

Name: Val Bachman

Position: Harold Crane WMA Supervisor

Phone: (801) 985-1398

Email: valbachman@utah.gov

Licensee

Name: James Harris

Position: Monitoring Section Manager, Division of Water Quality

Phone: (801) 536-4360

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DIVISION OF WILDLIFE RESOURCES

LICENSEE

James F. Karpowitz, Director

Utah Division of Wildlife Resources

Walter L. Baker, P.E., Director Utah Division of Water Quality

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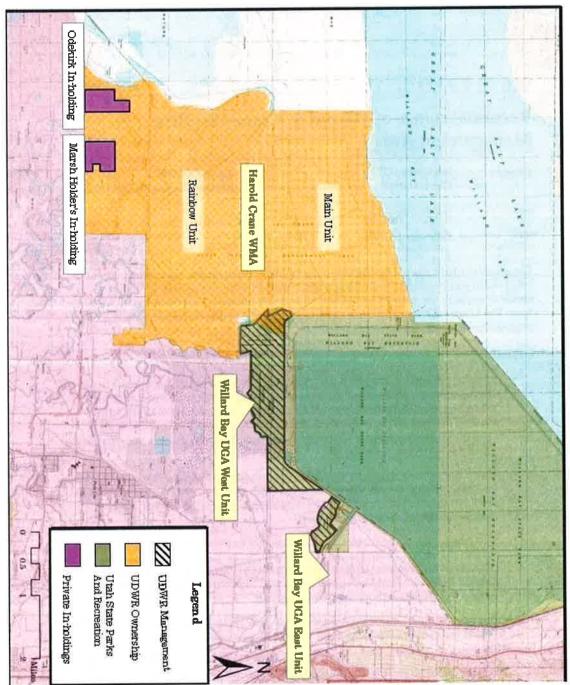
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Financial Mgr.

Date

Division of Wildlife Resources



Harold Crane WMA Land Ownership

MEETING SUMMARY

CH2MHILL

Reconnaissance of Harold S. Crane Wildlife Management Area

ATTENDEES:

Jim Harris/DWQ

Chad/UDWR

Travis/UDWR

Jeff DenBleyker/CH2M HILL

FROM:

Jeff DenBleyker

DATE:

February 24, 2011

The objective of our visit to the Harold Crane Wildlife Management Area (WMA) was to better understand some of the challenges that will need to be overcome and identify a means to measure the quantity and quality of water discharged from the WMA to Willard Spur. The following summarizes key challenges toward meeting this objective and a proposed path forward:

Challenges

- Many of the roads at the WMA are often impassable due to mud and unstable dikes.
 This includes the road extending to the north along the eastern boundary of the
 WMA and most of the roads that are on top of the dikes within the WMA. Most
 notably, the road on top of the north dike where the WMA discharges to Willard
 Spur is impassable except to foot traffic. This makes monitoring and sampling flow
 out of the WMA very problematic.
- Flow rates are very dynamic. Spring runoff is the most dominant flow period but the WMA often gets peak flows during local rain events as well. Flows can peak at up to 300 cfs over a short period. Monthly sampling would likely miss these dynamics (and resulting flow volumes).
- Water flowing into the WMA from the south and east is spread across numerous submerged and partially exposed culverts (see Figure 1). Measuring flow and collecting water samples at the inflow points to the WMA would be extremely difficult logistically and likely quite expensive. None of the points are currently gauged and there is little to no historical record.
- There is one ditch located between the WMA and Willard Bay Reservoir (east of the WMA) that conveys flow directly to Willard Spur from the South Drain.
- There is a large area between the WMA and Great Salt Lake Minerals (west of the WMA) that conveys flow directly to Willard Spur. Much of this is overflow that bypasses the WMA during flooding conditions. This may be controlled now as part of a recent flood bypass that was constructed on the east side of the WMA.
- Vandalism can be a problem. Any fixed equipment will need to be discrete.

 Scheduling access around planned bird surveys, hunting season, research, planned burns, and other management activities will be required.



FIGURE 1 Harold S. Crane Wildlife Management Area and Drainage Area

Proposed Plan

The proposed sampling plan at the WMA includes a combination of continuous and monthly flow monitoring and sampling along the most accessible dike at the WMA. This southern dike is also where flows and DWR operations are most concentrated (see Figure 2).

Almost all flow entering the WMA flows through the south dike of the WMA. The only exceptions are flows that go west of the WMA during extreme flow events and flows in the ditch on the eastern boundary of the WMA at the foot of the Willard Bay embankment. While there are sixteen (16) weir structures on the south dike, most of the flow through the south dike is concentrated at six (6) different weir structures as shown in Figure 2. Flow would pass through the other weir structures only during flooding conditions.

Figure 1 and 2 illustrate the proposed monitoring and sampling sites. The plan will include the following elements:

DWQ will establish one continuous flow measurement station on the ditch on the
eastern boundary of the WMA (labeled "WMA Ditch"). This may consist of
installing a pressure transducer to monitor water level (and thus flow) changes.
Water samples will be collected at this location on a monthly basis. Water in this
ditch is from the South Drain.

SLC/P:WORTHDAVISCOUNTYSEWE/341055/WILLARDSPURHYDROLOGYWTG SMRY 2_24_11.DOCX

RECONNAISSANCE OF HAROLD S. CRANE WILDLIFE MANAGEMENT AREA



FIGURE 2
Proposed Monitoring and Sampling Locations

DWQ will establish one continuous water level measurement station in the pool south of the southern dike (labeled "water level"). Figure 3 illustrates a possible concept for this station. This pool is fed by all of the various drains, ditches, and creeks supplying water to the WMA and controls flow over the weirs in the south dike of the WMA.

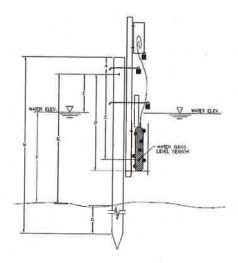


FIGURE 3
Possible Water Level Monitoring Station Configuration with Wood Post

SLC/P:NORTHDAVISCOUNTYSEWE/341055/WILLARDSPUR/HYDROLOGYMTG SMRY 2_24_11.DOCX

Exhibit B, cont'd

RECONNAISSANCE OF HAROLD S. CRANE WILDLIFE MANAGEMENT AREA

- 3. A rating curve will be established for each of the 16 weirs/culverts on the southern dike. Flow rates over the weirs will be calculated using the known water level in the pool upstream of the weirs. This assumes the following:
 - The entire pool south of the dike is hydraulically connected, thus at the same elevation throughout.
 - DWR can identify their preferred weir configuration for the 10 weirs that
 typically pass no water and leave them as is (no flow condition for non-flood
 events). Labeled with pink icon (Nos. 3-9 and 12-14). This may require
 confirming that the flashboards are in place.
 - DWR can identify their preferred configuration for the 6 weirs that are
 typically used and record if and when they make changes to those weirs.
 Labeled with blue icon (Nos. 1, 2, 10, 11, 15, and 16). DWQ will work with
 DWR to identify the simplest means to record these changes. Changes in
 flow over the weirs can be estimated from the recorded weir modifications
 and pool water surface elevation.
 - DWR will continue to maintain the current structures as they do now. They
 can verify and record the flow condition of each weir (flowing vs not
 flowing) when they travel the south dike (perhaps monthly or bi-weekly).
 - We cannot guarantee that beavers will not alter flow conditions at the weirs.
- 4. DWQ will check each weir on a monthly basis, verify flow rates, and collect samples at flowing weirs. The fact that only 6 weirs typically experience flow minimizes the number of samples and simplifies flow rate verification.
- 5. DWQ will sample the north dike culverts one or two times during 2011. This will require traveling the dike by foot and/or when DWR can assist with travel by ATV. The intent is to collect these water samples in conjunction with samples collected along the south dike to evaluate how water quality is changed before discharging to Willard Spur (i.e., is water quality at the south dike similar to what is found at the north dike?).
- 6. DWQ may look at installing an event-based composite water sampling system on a temporary basis to capture how water quality may change during storm events and/or other flow "pulses". Its location will be determined at a later time.
- 7. Need to verify flow patterns west of the WMA. CH2M HILL to discuss this area further with DWR and with Great Salt Lake Minerals.

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